

Arithmetic Slices II -Subsequence [\(View\)](#)

Given an integer array `nums`, return *the number of all the **arithmetic subsequences** of `nums`*.

A sequence of numbers is called arithmetic if it consists of **at least three elements** and if the difference between any two consecutive elements is the same.

- For example, `[1, 3, 5, 7, 9]`, `[7, 7, 7, 7]`, and `[3, -1, -5, -9]` are arithmetic sequences.
- For example, `[1, 1, 2, 5, 7]` is not an arithmetic sequence.

A **subsequence** of an array is a sequence that can be formed by removing some elements (possibly none) of the array.

- For example, `[2, 5, 10]` is a subsequence of `[1, 2, 1, 2, 4, 1, 5, 10]`.

The test cases are generated so that the answer fits in **32-bit** integer.

Example 1:

Input: `nums = [2,4,6,8,10]`

Output: 7

Explanation: All arithmetic subsequence slices are:

`[2,4,6]`

`[4,6,8]`

`[6,8,10]`

`[2,4,6,8]`

`[4,6,8,10]`

`[2,4,6,8,10]`

`[2,6,10]`

Example 2:

Input: `nums = [7,7,7,7,7]`

Output: 16

Explanation: Any subsequence of this array is arithmetic.

Constraints:

- `1 <= nums.length <= 1000`
- `$-2^{31} \leq \text{nums}[i] \leq 2^{31} - 1$`